

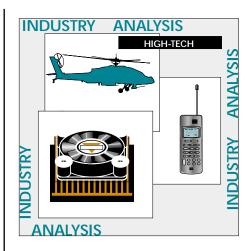
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# Az's High-Tech Industries Flourished During '90s

Employment, Wages in Most Tech Sectors Grew at Faster Pace Than State Overall

Arizona's high-tech industry has been growing rapidly since the early 1990s. High-tech firms have been moving into or expanding in Arizona faster than the local labor force can supply them. Consequently, a labor shortage began developing in the mid- to late-1990s, driving wages in these industries upward faster than the average wage for all payroll employment in Arizona (see Figure 2).



High-tech companies can be found in two major industry groups — manufacturing and services. Of these, the manufacturing component has by far the greatest employment, comprising 82 percent of all high-tech jobs (in 1998). However, 81 percent of all high-tech companies were involved in providing high-tech services. This indicates that high-tech manufacturing

Note: From time to time, DES, Research Administration will analyze detailed industry employment and wage data. That data, which are screened for BLS confidentiality rules, are used for the article, but may not be available to the public on a regular basis.

is primarily comprised of a few large employers, while high-tech services is comprised of numerous small companies. For example, 97 percent of all high-tech services companies have fewer than 50 employees.

The high-tech manufacturing component consists of companies in the following industries: Computer and Office Equipment; Household Audio and Video Equipment; Communications Equipment; Electronic Components and Accessories; Aircraft and Parts; and Missiles and Space Vehicle Propulsion. The services component, on the other hand, is made up entirely

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# Final '98 Wage Data In: Winners and Losers

In the Spring 1999 issue of <u>Arizona Economic Trends</u>, DES, Research Administration (RA) published average annual wage figures for Arizona for the first through the third quarter of 1998. Since then, final numbers for all of 1998 were completed by RA's ES-202 Unit, plus the U.S. Department of Labor published national statistics for all of 1997. Following is a brief analysis of recent trends.

Between 1994 and '97, overall wage growth in Arizona outpaced the nation as a whole by about one percentage point — 13.6 percent vs. 12.7 percent. And it's likely that Arizona widened the gap in '98 when it produced an exceptionally strong gain of 5.8 percent. (Final U.S. data for '98 were not available at the time of this report.) Overall, in 1998 the average wage in Arizona was \$29,264, nearly \$1,500 higher than in '97. The state ranked 26<sup>th</sup> among all states and Washington D.C. in average annual pay in '97.

Recent better-than-average wage gains, however, only partially offset a sluggish period of wage growth during the latter part of the 1980s and the

(continued on page 6)

of companies in Computer Programming and Data Processing industries.

Growth in Arizona's high-tech manufacturing sectors has been strong since the early 1990s. From 1993 through 1998, the percentage of Arizona's nonfarm payroll employees in high-tech manufacturing industries remained at a 4 percent share — with a total gain of 16,300 workers (see Figure 1) — at a time when the state's overall payroll employment grew at an average annual rate of 5.3 percent.) However, the simultaneous and more rapid rise in wages indicates strong demand for high-tech products and a likely shortage of workers.

Employment and wage growth in high-tech services has also been strong. Though still a small fraction of Arizona's nonfarm payroll employment, the number of workers in high-tech services has been rising quickly. In 1993, roughly 10,000 workers were employed in high-tech services. The number nearly doubled by 1998, reaching an average of 18,100. In addition, the average wage for high-tech services sectors increased by a staggering 50 percent over the same time period, again indicating a labor shortage.

Following is an analysis of Arizona's high-tech industries at the three-digit SIC level. For a breakdown of the components of each three-digit SIC industry, see Table 1.

# Computer and Office Equipment

Employment has increased gradually, while the number of companies has remained fairly constant over the '93-to-'98 time period. The average wage increased steadily from '94 to '98. Of the subindustries included in this component, Computer Storage Devices has shown the strongest employment growth, followed by Computer Peripheral Equipment. The average wage rose fastest in the Electronic Computers component.

# Table 1

# Components of High-Tech-Industries (Three-Digit SIC Level)<sup>1</sup>

### Computer and Office Equipment (SIC 357)

Electronic Computers, Computer Storage Devices, Computer Terminals, and Computer Peripheral Equipment

#### Household Audio and Video (SIC 365)

Household Audio and Video Equipment, and Prerecorded Records and Tapes

#### **Communications Equipment (SIC 366)**

Telephone and Telegraph Apparatus, Radio and TV Broadcasting and Communications Equipment, and Communications Equipment (not elsewhere classified—includes electronic intercommunications equipment, alarms, and traffic signals)

#### Electronic Components and Accessories(SIC 367)

Electron Tubes, Printed Circuit Boards, Semiconductors and Related Devices, Electronic Capacitors, Electronic Resistors, Electronic Coils, Transformers, and Inductors, Electronic Connectors, and Electronic Components (not elsewhere classified)

### Aircraft and Parts (SIC 372)

Aircraft, Aircraft Engines and Engine Parts, and Aircraft Parts and Equipment (not elsewhere classified)

### Guided Missiles and Space Vehicle Propulsion (SIC 376)

Guided missiles and space vehicles, Space propulsion units and parts, and Space Vehicle Equipment (not elsewhere classified)

# Computer Programming, Data Processing, and Other Computer Related Services (SIC 737)

Computer Programming, Pre-Packaged Software, Computer Integrated Systems Design, Computer Processing and Data Preparation and Processing, Information Retrieval, Computer Facilities Management, Computer Rental and Leasing, Computer Maintenance and Repair, and Computer Related (not elsewhere classified)

### Note:

 SIC refers to the Standard Industrial Classification Code, which is the statistical classification standard underlying all U.S. establishment-based economic statistics classified by industry.

## **Household Audio and Video**

Employment in this sector was fairly constant from '93 to '98, while the number of companies gradually decreased. The average wage, however, rose nearly 35 percent, or 6.3 percent annually, one percentage-point higher

than the annual growth rate for manufacturing between '93 and '98.

## **Communications Equipment**

Employment increased a healthy 41 percent, or 8 percent annually, during the period analyzed, the strongest growth among high-tech manufactur-

ing sectors. However, strong job growth didn't translate into increased wage growth, with the average wage remaining fairly constant. The number of companies declined in all subindustries, indicating that competition favored larger establishments. The Telephone and Telegraph Apparatus component saw the greatest increase in employment from '93 to '98, and the greatest increase in average wage from '96 to '98.

# **Electronic Components and Accessories**

Both employment and the average wage had strong increases (32 percent and 49 percent, respectively) over the five-year period, though employment experienced a downturn in 1998, probably due to the Asian economic crisis. The number of companies increased at a moderate 2 percent annual rate, though the number of firms did fall temporarily in '95 and '96. The Printed Circuit Boards subindustry showed the greatest employment growth rate from '93 to '98, with the Semiconductors and Related Devices, Electronic Capacitors, and Electronic Connectors groups also demonstrating strong employment growth. Over the same period, wages grew fastest in the Semiconductors and Related Devices subindustry, followed by Printed Circuit Boards.

### **Aircraft and Parts**

The average wage steadily increased (about 4 percent annually) from '94 through '97, but leveled off in '98. Employment and the number of companies increased 24 percent from '93 to '98, despite a small downturn in '94.

## Guided Missiles and Space Vehicle Propulsion

After increases in '93 and '94, total employment remained nearly constant from '95 to '98. The number of companies was stable from '93 through '98. However, wages in this sector increased strongly during the entire period, competing with Electronic Components and Accessories, and Computer and Office Equipment

# Figure 1 Employment as a Percentage Share of Total Arizona Nonfarm Employment, 1993-1998

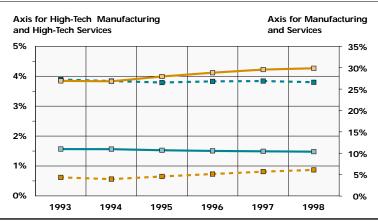


Figure 2
Average Annual Wage, 1993-1998

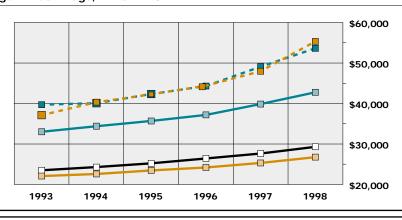
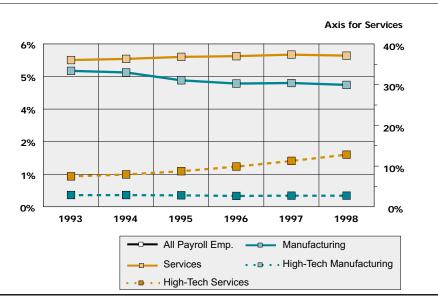


Figure 3
Establishments as a Percentage Share of Total Arizona Nonfarm Establishments,
1993-1998



for the highest average annual wage in the high-tech industry. (Due to confidentiality rules, wage and employment data for Guided Missiles and Space Vehicle Propulsion (SIC 376) have been omitted from this analysis and do not appear in the graphs or table.)

## Computer Programming, Data Processing, and Other Computer Related Services

Employment and wages rose an exceptional 82 percent and 49 percent, respectively, from '93 to '98. This sector was unique in the high-tech industry in that the number of establishments also grew significantly, increasing by 98 percent from '93 to '98. The most rapid wage growth occurred in the Computer Processing and Data Preparation and Processing subindustry, followed by Information Retrieval Services. However, the highest average wage in 1998 was in the Computer Related Not Elsewhere Classified (NEC) component, which includes companies involved with computer consulting, data base development, data processing consulting, and computer hardware requirements analysis. The Computer Related (NEC) component also consistently had the largest and most rapidly growing companies in the high-tech services component.

#### Notes:

 Data on average annual pay are the product of a federal-state cooperative program in which State Employment Security Agencies (SESAs) prepare summaries of employment and total pay of workers covered by unemployment insurance (UI) legislation. The summaries are a byproduct of the administration of State Unemployment Insurance Programs, which require most employers to pay quarterly taxes based on the employment and wages of workers covered by UI.

> —Charlotte Armerding, Economic Analysis Intern

Figure 4
Average Annual Wage in Arizona's High Tech Industries, 1993-1998

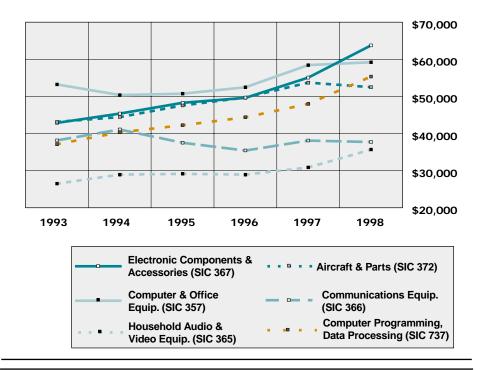
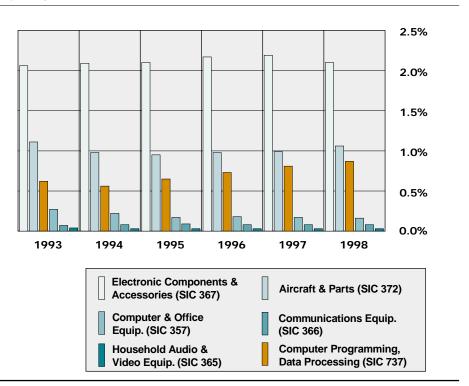


Figure 5
Arizona High-Tech Industries' Percentage Share of Total Nonfarm Employment,
1993-1998



4 Arizona Economic Trends

Table 2
Detailed Arizona Nonfarm Employment and Wage Data, 1993-1998

							Avg. An	nual Chg. Pct.
	1993	1994	1995	1996	1997	1998	<sup>1</sup> 93 - <sup>1</sup> 98	'93 - '9 <del>8</del>
Payroll Employment Wage (Annual Average			.,,,,			.,,,,	10 10	70 70
All Payroll Employment	\$23,496	\$24,286	\$25,209	\$26,422	\$27,655	\$29,297	\$1,160	4.5%
Manufacturing	\$33,023	\$34,390	\$35,703	\$37,185	\$39,879	\$42,770	\$1,949	5.3%
High-Tech Manufacturing	\$39,714	\$40,089	\$42,332	\$44,320	\$49,098	\$53,650	\$2,787	6.3%
(357) Computer & Office Equip.	\$53,236	\$50,364	\$50,742	\$52,459	\$58,435	\$59,204	\$1,194	2.3%
(365) Household Audio & Video Equip	\$26,499	\$28,938	\$29,153	\$28,936	\$30,859	\$35,684	\$1,837	6.3%
(366) Communications Equip.	\$38,154	\$41,106	\$37,526	\$35,437	\$38,114	\$37,728	\$ -85	0.0%
(367) Electronic Components & Accessories	\$42,900	\$45,392	\$48,278	\$49,620	\$55,085	\$63,754	\$4,171	8.3%
(372) Aircraft & Parts	\$43,162	\$44,442	\$47,566	\$49,701	\$53,709	\$52,499	\$1,867	4.1%
Services	\$22,071	\$22,575	\$23,461	\$24,195	\$25,310	\$26,745	\$ 935	3.9%
High Tech Services [(737) Comp.								
Programming, Data Processing]	\$37,132	\$40,344	\$42,255	\$44,393	\$47,979	\$55,356	\$3,645	8.4%
Payroll Employment (Annual Average)								
All Payroll Employment	1,605,500	1,706,908	1,805,981	1,892,777	1,977,350	2,073,468	93,594	5.3%
Manufacturing	176,026	186,864	193,059	199,398	206,718	214,843	7,763	4.1%
High Tech Manufacturing	62,506	65,590	68,428	72,579	75,910	78,785	3,256	4.7%
(357) Computer & Office Equip.	4,283	3,714	3,079	3,392	3,454	3,303	-196	-4.6%
(365) Household Audio & Video Equip	578 1,124	572 1,291	603 1,695	594 1,505	595 1,497	582 1,582	1 92	0.2% 8.0%
<ul><li>(366) Communications Equip.</li><li>(367) Electronic Components &amp; Accessories</li></ul>	33,102	35,610	37,987	41,076	43,286	43,604	2,100	5.7%
(372) Aircraft & Parts	17,753	16,752	17,105	18,468	19,598	22,037	857	4.6%
Services	432,353	457,786	504,746	545,881	584,790	619,553	37,440	7.5%
High Tech Services [(737) Comp.	402,000	437,700	304,740	343,001	304,770	017,555	37,440	7.570
Programming, Data Processing	9,958	9,584	11,661	13,863	16,063	18,120	1,632	13.1%
Employment as Percentage Share of Total				.,	.,		,	
Manufacturing	10.96%	10.95%	10.69%	10.53%	10.45%	10.36%	-0.12%	-1.12%
High Tech Manufacturing	3.89%	3.84%	3.79%	3.83%	3.84%	3.80%	-0.02%	-0.48%
(357) Computer & Office Equip.	0.27%	0.22%	0.17%	0.18%	0.17%	0.16%	-0.02%	-9.26%
(365) Household Audio & Video Equip	0.04%	0.03%	0.03%	0.03%	0.03%	0.03%	0.00%	-4.83%
(366) Communications Equip.	0.07%	0.08%	0.09%	0.08%	0.08%	0.08%	0.00%	2.57%
(367) Electronic Components & Accessories	2.06%	2.09%	2.10%	2.17%	2.19%	2.10%	0.01%	0.42%
(372) Aircraft & Parts1.11%	0.98%	0.95%	0.98%	0.99%	1.06%	-0.01%	-0.58%	0.127
Services	26.93%	26.82%	27.95%	28.84%	29.57%	29.88%	0.59%	2.11%
High Tech Services [(737) Comp.								
Programming, Data Processing]	0.62%	0.56%	0.65%	0.73%	0.81%	0.87%	0.05%	7.49%
Establishments (Annual Average)								
All Payroll Employment	96,407	101,086	103,699	105,712	108,680	111,416	3,002	2.9%
Manufacturing	4,834	4,999	4,830	4,797	4,958	5,008	35	0.7%
High Tech Manufacturing	416	431	434	428	449	451	7	1.7%
(357) Computer & Office Equip.	47	51	42	43	46	46	0	-0.1%
(365) Household Audio & Video Equip	20	19	17	15	16	15	-1	-5.7%
(366) Communications Equip.	38	39	39	40	34	33	-1	-2.7%
(367) Electronic Components & Accessories	169	182	183	177	185	186	3	2.0%
(372) Aircraft & Parts	132	129	146	146	161	161	6	4.2%
Services (7227)	34,744	36,733	38,193	39,117	40,628	41,358	1,323	3.6%
High Tech Services [(737) Comp.	4.070	4.000	4.050	4.570	4.007	0.405	044	4.4.70/
Programming, Data Processing]	1,078	1,203	1,358	1,570	1,837	2,135	211	14.7%
Establishments as Percentage Share of Total	al Payroll Est	tablishments (	Annual Avera	ge)				
Manufacturing	5.01%	4.95%	4.66%	4.54%	4.56%	4.49%	-0.10%	-2.14%
High Tech Manufacturing	0.43%	0.43%	0.42%	0.40%	0.41%	0.41%	-0.01%	-1.24%
(357) Computer & Office Equip.	0.05%	0.05%	0.04%	0.04%	0.04%	0.04%	0.00%	-2.93%
(365) Household Audio & Video Equip	0.02%	0.02%	0.02%	0.01%	0.01%	0.01%	0.00%	-8.41%
(366) Communications Equip.	0.04%	0.04%	0.04%	0.04%	0.03%	0.03%	0.00%	-5.47%
(367) Electronic Components & Accessories	0.18%	0.18%	0.18%	0.17%	0.17%	0.17%	0.00%	-0.90%
(372) Aircraft & Parts	0.14%	0.13%	0.14%	0.14%	0.15%	0.14%	0.00%	1.25%
Services	36.04%	36.34%	36.83%	37.00%	37.38%	37.12%	0.22%	0.60%
High Tech Services [(737) Comp.	1 100/	1 100/	4 040/	4 400/	1 (00)	1.000/	0.1/0/	14 440
Programming, Data Processing]	1.12%	1.19%	1.31%	1.48%	1.69%	1.92%	0.16%	11.41%

Source for All Figures and Table: Arizona Dept. of Economic Security, Research Administration, ES-202 Unit

# Manufacturing, W. Trade Score Big Wage Gains in '98

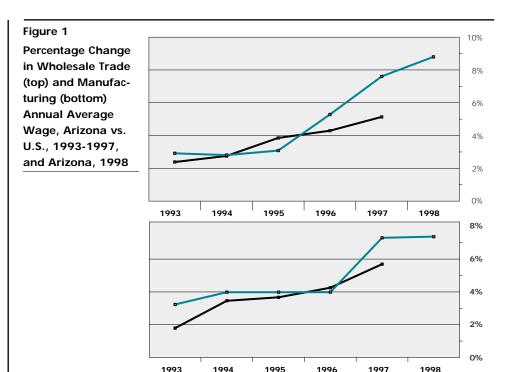
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early '90s. Due to weak finance and
construction sectors, in only one year
between 1985 and '93 did Arizona
have wage gains larger than the rest
of the country. During that time, the
nation's average annual wage grew
about 25 percent faster than in Arizona, widening a deficit of about
\$1,000 in the annual average wage to
nearly a \$3,000 shortfall. And as
would be expected, Arizona's ranking
among all states and Washington D.C.
fell from about 20<sup>th</sup> to nearly 30<sup>th</sup>
during that period.

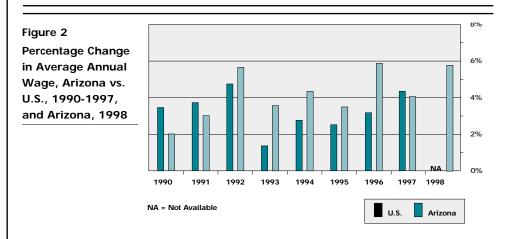
What turned the state around the past few years? A number of factors contributed, not the least of which was state legislation enacted in the early '90s that provided economic incentives to a variety of manufacturers (high-tech, defense-related) to relocate or expand their operations in the state. The result was that employment and wages surged in manufacturing, helping lift the state's overall wage growth.

Additionally, the finance and construction sectors that had been decimated by problems in the savings and loan industry in the late 1980s and early '90s (all but one of Arizona's S&Ls went belly-up) began to turn around when the oversupply of commercial, industrial, and residential real estate (particularly in the Phoenix metro area) was sold off. And a robust national economy helped spur growth in a wide range of sectors — from high-tech manufacturing (see related story), to business and health services, to retail and wholesale trade.

## **Industry Trends**

During the past several years, several of Arizona's major industry groups have had exceptional wage growth; several have had solid wage gains, and one major industry (mining) had up and down growth. By far, the stellar performers have been manufacturing, led by the high-tech sectors, and wholesale trade. Between 1994 and '98, manufacturing





Source for All Figures: Ariz. Dept. of Economic Security, Research Administration; and U.S. Dept. of Labor, Bureau of Labor Statistics

wages increased 25 percent, or about 6 percent a year. The average wage in manufacturing in '97 was \$39,880, ranking Arizona 12<sup>th</sup> among all states and Washington D.C., and the state likely improved its ranking in '98 when the average manufacturing wage grew more than 7 percent to \$42,819. The force behind manufacturing's strong growth has been high-tech sectors, such as "semiconductor and related products" (see related article). Between 1993 and '98,

the average wage in the semiconductor sector grew by more than 40 percent to about \$65,000. That means that when all 25,000 workers — including clerical, assembly, and even janitors — in the state's semiconductor sector are included, the average wage per worker was \$65,000.

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Arizona

Even stronger, in percentage terms, has been the growth of wages in Arizona's wholesale trade sector. Between '94 and '98, the average wage in wholesale trade grew 27 percent to

just under \$40,000 a year. In '98 alone, wholesale trade wages grew just shy of 9 percent. Behind this strong growth has been the expansion of warehouse operations in the Phoenix metro area. National companies such as Wal-Mart, Fry's (a division of Kroger), and Avnet have developed significant distribution centers in Arizona for transportation of goods throughout the state, the West, and Mexico. Available industrial space and lower cost of operation than in surrounding states (such as California) have been two of the prime reasons for growth of wholesale trade.

Although not flying quite as high, but certainly no slouch in terms of wage growth, have been Arizona's retail trade and construction sectors; as well as the finance, insurance, and real estate (FIRE) group (excluding commercial banks).

Arizona's retail trade sector, which has been hard-pressed to find workers for an explosion of national retail stores and shopping centers, has had consistently faster wage growth than the nation for the last several years. Between 1993 and '97, Arizona retail trade wages grew 19 percent, compared to U.S. growth of 13.4 percent. The average retail trade worker in Arizona earned nearly \$900 more than the average worker nationally in '97, with the state's average wage ranking 12th among all states. And the gap likely widened in '98 when retail trade wages grew 5½ percent to an average of \$17,635 (see Figures 3a and 3b). (It should be noted that the average wage for retail trade is significantly lower than other industries because a large percentage of workers in this industry group are part-time employees.)

With one of the strongest real estate markets across the board — single-family, commercial, and industrial — wages in Arizona's construction and most FIRE sectors have posted solid gains the past several years. Although significantly below the national average wage (\$27,916 vs. \$31,741 in '97), construction wages grew faster than nationally in recent years. Between

Figure 3a

Average Annual Wage for Retail Trade, Arizona vs. U.S., 1990-1997, and Arizona, 1998

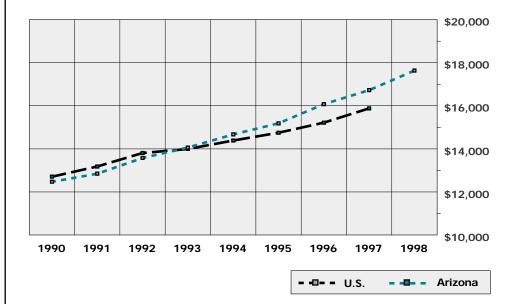
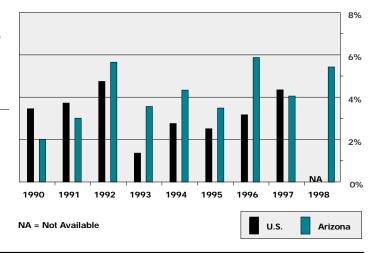


Figure 3b
Percentage Change
in Retail Trade
Wage, Arizona vs.
U.S., 1990-1997,
and Arizona, 1998



1993 and '97, construction wages grew about 20 percent faster (19 percent vs. 15.2 percent) in Arizona than the nation as a whole.

With the exception of an extremely weak commercial banking sector in '97 — due to consolidations and layoffs of higher-paid workers — the state's FIRE sector posted strong wage growth in recent years. Between 1994 and '98, FIRE wages grew 22.7 percent, or about 5½ percent a year. Excluding commercial banks, which employ about 20 percent of FIRE's more than 100,000 workers, wage growth would have been significantly

higher during that five-year period. Still, the average wage in FIRE in '97 was substantially below the national average — \$34,040 vs. \$44,860.

One industry that has fallen on hard times has been mining, particularly copper mining, which has consistently lost employment over the last 15 years due to technological improvements and competition from lower-paid foreign markets. With the exception of strong wage gains in 1996, wage growth was flat or negative between 1993 and '98. And the prognosis is not good for the copper-mining industry. The price of

copper has fallen in half the past several years, which led this summer to the layoff of about 3,000 workers, or about one-third of state's coppermining workforce.

# **Metro-Area Pay**

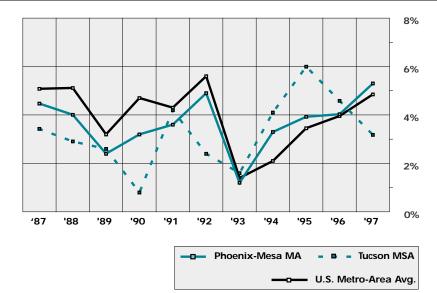
The state's four metropolitan areas posted strong pay gains in 1997 and '98. Wages grew nearly 12 percent in the Phoenix-Mesa Metro Area (MA), which includes Maricopa and Pinal counties; 8.3 percent in the Tucson MA (Pima County), 11 percent in the greater Flagstaff area (Coconino County only); and 10.3 percent in the normally low-wage and high-unemployed Yuma County, where nearly 30 percent of the workforce is employed in agriculture. In '97, the last year data were available nationally, two of the metro areas (Phoenix-Mesa, Yuma) had higher wage growth than the country as a whole (4.9 percent), while two were below the national average.

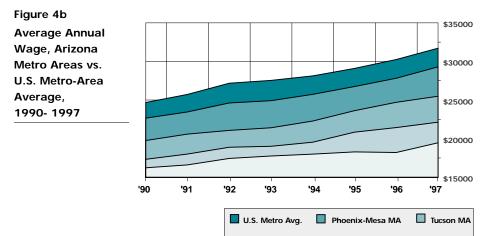
Thanks to strong wage growth in manufacturing, wholesale trade, and retail trade (see above), the Phoenix-Mesa MA has prospered the most among the state's four metro areas the last several years. In fact, Phoenix-Mesa ranked 76<sup>th</sup> among the nation's 315 metro areas in '97, its highest ranking in more than decade. In the early 1990s, the metro area had fallen to as low as 104<sup>th</sup> due to faster growth than the nation in lower-paying service-sector jobs and fallout from the S&L crisis. And the metro area's pay ranking is likely to rise again (when nationwide metro data for 1998 are released) because of an exceptional 6.2 percent growth rate in '98 to an average wage of \$31,132.

The Tucson MA has also improved its standing among metro areas in recent years, due in part to better-than-average wage and employment gains in manufacturing because of growth of defense and aerospace firms (e.g. Raytheon, Lockheed). In 1992, the Tucson MA ranked as low as 244<sup>th</sup>, but since came back to 179<sup>th</sup> in '96 before falling back to 185<sup>th</sup> in '97. That should improve somewhat in '98, as wages grew 5 percent to a level of \$27,767.

Figure 4a

Percentage Change in Average Annual Wage, Phoenix and Tucson Metro Areas and U.S. Metro-Area Average, 1987-1997





☐ Flagstaff MA

The Flagstaff and Yuma MA's ranked near the bottom of all metro areas in '97 — 291<sup>st</sup> and 314<sup>th</sup>, respectively. But that may change in the near future.

Wages improved dramatically in the Yuma MA in '97 (6.8 percent), directly attributable to minimum-wage increases for agricultural workers, and showed a respectable gain of 3.2 percent in '98. And continued employment growth along both sides of the Mexican border (about 75 miles to the south) and recently increased economic-development activity to

bring higher-paying employers to Yuma may portend stronger wage growth in the future as the area broadens its industry base.

☐ Yuma MA

The Flagstaff MA (which includes Coconino County, Ariz., and Kane County, Utah), too, may have opportunities to improve its average wage, which was slightly above \$22,000 in '97. Flagstaff's location along a major interstate highway (I-40) and railway line may allow for increased wholesale trade and manufacturing activity, two industries that currently comprise

(continued on page 15)

# Arizona's Economy Showed Signs of Slowing Down

Arizona's civilian labor force grew by a seasonally high average of 48,400 during the second quarter of 1999. This represents a 2.1 percent increase over first-quarter '99 figures and three-tenths of one percentage point increase above the 10-year

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average. The seasonally adjusted average unemployment rate of 4.4 percent was one-tenth of one percentage point above the national average of 4.3 percent.

Total nonfarm payroll growth in the second quarter of '99 fell below the 10-year average year-to-year percent change for the first time since the first quarter of 1993. This is further evidence that the Arizona economy is slowing from its torrid growth during the mid-and late-90's. However, Arizona continues to be one of the fastest job-growth states.

The steep decline in manufacturing abated in the second quarter. Year-to-year growth fell from its peak of 6.1 percent in the first quarter of 1998 to seven-tenths of one percent for the second quarter of 1999. However, the rate slowed only four-tenths of one percentage point from the first quarter. The reversal of fortunes in the Asian economy were beginning to be felt in the Arizona manufacturing industries.

The Arizona mining industry continued its economic contraction for the sixth quarter in a row as employment shrank by a year-to-year rate of 3.1 percent. Weak copper prices coupled with oversupply continued to plague this once stalwart Arizona industry.

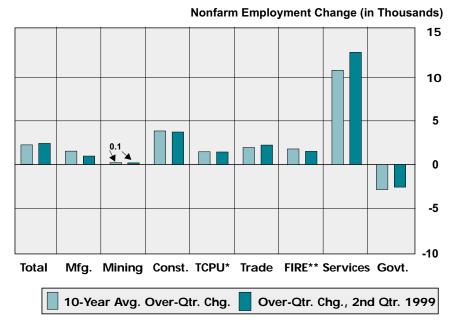
The construction mini-boom continued for Arizona in the second

(continued on back page)

Figure 1

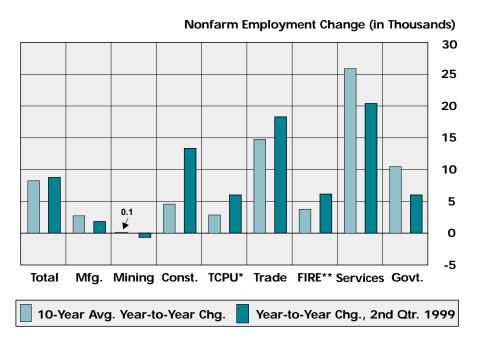
Quarterly and 10-Year Average Quarterly Change in Arizona Major Industry

Employment, 2nd Qtr. 1999<sup>1</sup>



- Transportation, Communications, and Public Utilities
- \* Finance, Insurance, and Real Estate

Figure 2 Year-to-Year Change and 10-Year Average Year-to-Year Change in Arizona Major Industry Employment, 2nd Qtr. 1999<sup>1</sup>



- Transportation, Communications, and Public Utilities
- \* Finance, Insurance, and Real Estate

Note: 1) Quarterly averages of monthly data, not seasonally adjusted.

Source: Arizona Department of Economic Security, Research Administration, August 1999

Table 1
Arizona Quarterly Nonfarm Employment Data, with Quarterly and Over-the-Year Percentage Change, 2nd Qtr. 1998-2nd Qtr. 1999<sup>(1)</sup>

(in Thousands)

	98/2	98/3	98/4	99/1	99/2	10-year Avg. of Qtr. 2 Changes
Civilian Labor Force	2,251.7	2,306.4	2,337.4	2,348.1	2,396.5	
Quarterly Change	2.6	2.4	1.3	0.5	2.1	NA
Annual Change	3.6	5.0	5.8	7.0	6.4	NA
Total Employment	2,158.3	2,197.3	2,248.0	2,261.5	2,292.5	
Quarterly Change	2.3	1.8	2.3	0.6	1.4	NA
Annual Change	4.0	5.4	6.3	7.2	6.2	NA
Total Nonfarm Payroll Employment	2,071.1	2,062.6	2,135.1	2,122.1	2,142.0	
Quarterly Change	1.4	-0.4	3.5	-0.6	0.9	1.1
Annual Change	5.0	5.0	4.0	3.8	3.4	3.9
Manufacturing	216.7	218.0	218.4	217.4	218.3	
Quarterly Change	0.8	0.6	0.2	-0.5	0.4	0.8
Annual Change	5.7	4.4	2.6	1.1	0.7	1.4
Mining and Quarrying	13.0	12.8	12.6	12.5	12.6	
Quarterly Change	-1.3	-1.3	-1.6	-1.1	0.8	1.0
Annual Change	-4.9	-9.2	-6.4	-5.1	-3.1	1.0
Construction	141.5	147.3	150.7	150.9	154.8	
Quarterly Change	4.3	4.1	2.3	0.1	2.6	4.3
Annual Change	8.9	9.8	9.6	11.2	9.3	4.6
Transportation, Communications,	100.0	101.7	104.2	104.4	105.0	
and Public Utilities	100.0	101.7	104.2	104.4	105.8	4 7
Quarterly Change	2.0	1.7 5.7	2.4 4.9	0.2	1.3 5.7	1.7 3.2
Annual Change	4.0	5.7	4.9	6.4	5.7	3.2
Finance, Insurance, & Real Estate	139.2	141.1	142.9	143.4	144.9	
Quarterly Change	5.1	1.4	1.2	0.4	1.1	1.7
Annual Change	10.7	9.9	6.9	8.3	4.1	4.0
Trade	496.0	494.3	511.9	512.3	514.7	
Quarterly Change	0.3	-0.3	3.6	0.1	0.5	0.5
Annual Change	3.7	4.0	2.8	3.6	3.8	3.6
Services and Miscellaneous	625.8	629.3	642.6	633.6	646.0	
Quarterly Change	3.1	0.6	2.1	-1.4	2.0	2.2
Annual Change	5.4	5.7	4.9	4.3	3.2	5.5
Government	338.9	318.1	351.9	347.7	344.9	
Quarterly Change	-2.4	-6.1	10.6	-1.2	-0.8	-1.1
Annual Change	2.5	2.2	1.8	0.1	1.8	3.7

Notes:

NA = Not Available

See Table 3 for Source

<sup>1)</sup> Detailed industry data may not add up exactly due to averaging

Table 2
Phoenix Metro Area Quarterly Nonfarm Employment Data, with Quarterly and Over-the-Year Percentage Change, 2nd Qtr. 1998-2nd Qtr. 1999<sup>(1)</sup>

(in Thousands)

	98/2	98/3	98/4	99/1	99/2	10-year Avg. of Qtr. 2 Changes
Civilian Labor Force	1,456.0	1,487.7	1,527.3	1,558.1	1,565.4	
Quarterly Change	0.1	2.2	2.7	2.0	0.5	NA
Annual Change	2.6	4.6	6.3	7.1	7.5	NA
Total Employment	1,418.4	1,449.8	1,481.3	1,515.6	1,522.2	
Quarterly Change	0.3	2.2	2.2	2.3	0.4	NA
Annual Change	3.4	5.0	6.4	7.2	7.3	NA
Total Nonfarm Payroll Employment	1,431.1	1,454.8	1,451.7	1,502.1	1,490.3	
Quarterly Change	0.0	1.7	-0.2	3.5	-0.8	-0.2
Annual Change	5.3	5.9	6.1	5.0	4.1	4.1
Manufacturing	169.0	170.1	170.8	171.0	170.5	
Quarterly Change	1.4	0.7	0.5	0.1	-0.3	-0.2
Annual Change	7.6	6.7	4.8	2.6	0.9	1.9
Mining and Quarrying	5.8	5.7	5.6	5.6	5.5	
Quarterly Change	-3.3	-2.3	-1.2	0.0	-1.2	2.4
Annual Change	-10.8	-6.1	-13.4	-6.7	-4.6	3.3
Construction	99.6	103.5	107.8	110.1	110.5	
Quarterly Change	-0.3	4.0	4.1	2.1	0.4	-3.1
Annual Change	9.7	11.0	11.6	10.3	11.0	4.9
Transportation, Communications, and Public Utilities	72.3	73.7	75.3	77.5	78.2	
						4.4
Quarterly Change Annual Change	0.0 4.3	1.9 5.1	2.2 7.6	2.9 7.1	1.0 8.2	-1.1 3.5
Allitual Change	4.3	5.1	7.0	7.1	0.2	3.5
Finance, Insurance, & Real Estate	110.8	116.7	118.8	121.3	121.9	
Quarterly Change	-0.9	5.3	1.8	2.2	0.5	0.4
Annual Change	7.3	10.2	10.2	8.5	10.0	3.9
Trade	350.4	351.7	349.8	362.7	363.8	
Quarterly Change	0.1	0.4	-0.5	3.7	0.3	-0.4
Annual Change	4.3	4.8	5.1	3.6	3.8	3.9
Services and Miscellaneous	439.0	452.3	452.6	461.6	452.2	
Quarterly Change	-1.0	3.0	0.1	2.0	-2.0	0.9
Annual Change	3.9	4.8	5.3	4.1	3.0	5.9
Government	184.2	181.3	171.1	192.4	187.5	
Quarterly Change	2.0	-1.6	-5.6	12.5	-2.5	-0.7
Annual Change	5.9	5.7	5.8	6.6	1.8	3.2

Notes:

1) Detailed industry data may not add up exactly due to averaging

NA = Not Available See Table 3 for Source

Table 3 Tucson Metro Area Quarterly Nonfarm Employment Data, with Quarterly and Over-the-Year Percentage Change, 2nd Qtr. 1998-2nd Qtr. 1999(1)

(in Thousands)

	98/2	98/3	98/4	99/1	99/2	10-year Avg. of Qtr. 2 Changes
Civilian Labor Force	360.1	370.9	373.6	383.1	387.8	
Quarterly Change	-2.1	3.0	0.7	2.6	1.2	NA
Annual Change	-0.2	2.6	3.1	4.2	7.7	NA
Total Employment	349.6	360.9	362.7	373.8	378.2	
Quarterly Change	-1.8	3.2	0.5	3.1	1.2	NA
Annual Change	0.3	3.1	3.7	5.0	8.2	NA
Total Nonfarm Payroll Employment	321.1	325.6	320.8	334.0	334.0	
Quarterly Change	-1.3	1.4	-1.5	4.1	0.0	-0.2
Annual Change	3.1	3.6	3.3	2.7	4.0	2.6
Manufacturing	28.5	29.0	29.2	29.4	29.0	
Quarterly Change	-0.5	1.5	0.7	0.9	-1.4	-0.3
Annual Change	1.4	2.8	3.6	2.7	1.8	-0.6
Mining and Quarrying	2.2	2.2	2.1	2.1	2.1	
Quarterly Change	0.0	0.0	-3.0	-1.6	0.0	1.5
Annual Change	-4.3	-4.3	-8.6	-4.5	-4.5	3.1
Construction	19.2	19.8	20.4	20.7	21.0	
Quarterly Change	-4.2	3.0	3.4	1.1	1.5	-3.0
Annual Change	2.9	3.5	3.7	3.2	9.2	1.5
Transportation, Communications,	40.4	40.5	40.4	10.6	40.0	
and Public Utilities	13.4	13.5	13.4	13.6	13.3	
Quarterly Change	-5.4	1.2	-0.7	1.0	-1.7	-0.4
Annual Change	1.5	1.2	-2.9	-4.0	-0.2	4.0
Finance, Insurance, & Real Estate	12.4	12.8	13.4	13.6	13.3	
Quarterly Change	-1.8	3.2	4.4	1.7	-2.4	-1.8
Annual Change	6.9	9.4	9.8	7.6	7.0	0.2
Trade	70.3	69.5	69.2	72.2	72.0	
Quarterly Change	-2.5	-1.1	-0.4	4.3	-0.4	-0.4
Annual Change	2.8	1.8	1.5	0.2	2.4	2.2
Services and Miscellaneous	104.0	106.1	106.7	108.4	109.3	
Quarterly Change	2.7	2.1	0.6	1.6	0.8	1.0
Annual Change	6.2	7.5	7.5	7.1	5.1	4.3
Government	71.2	72.7	66.3	74.0	74.0	
Quarterly Change	-4.3	2.2	-8.9	11.6	0.0	-0.2
Annual Change	0.0	-0.1	-0.8	-0.5	4.0	3.1

Notes:

Arizona Department of Economic Security, Research Administration, and U.S. Bureau of Labor Statistics, August 1999 Source:

<sup>1)</sup> Detailed industry data may not add up exactly due to averaging b) Tucson Metropolitan Area includes all of Pima County

NA = Not Available

# **Industry Update**



### **Phoenix Metro Area**

## Manufacturing

A reorganization and slowdown in business will lead to the **layoff of 400 workers** at **AlliedSignal's Engines and Systems Division** facilities in Phoenix and Tempe. The job cuts, which will take effect by the end of October, will **mainly hit middle-management positions**, the company said. The layoffs are not related to AlliedSignal's impending merger with Honeywell. AlliedSignal employs about 9,000 workers in the Valley.

Construction was expected to begin in September '99 on a **\$7 million steel-joist plant near Buckeye**, about 30 miles west of downtown Phoenix. **Schuff Steel Co.** said it expects to **employ about 100 people** when the steel-fabrication facility **opens in January 2000**, with a potential workforce of 200 by the end of 2000. Phoenix-based Schuff has recently been involved in a number of high-profile projects in the West, including BankOne Ballpark and the Collier Center in downtown Phoenix.

**Maxwell Productions** plans to build a **DVD** (digital versatile disk) manufacturing facility at the 260-acre Perimeter Center in Scottsdale (Bell and Pima roads) that will **employ 200 when completed in mid-2000**. The \$10 million plant will manufacture, master, and replicate DVDs for movie, gaming, and software companies. DVDs are similar to CDs, but can store 100 times as much information, which is needed for movies and other graphic-intensive media.

### **Construction**

By a 3-to-2 margin, **Scottsdale voters said "yes"** to a \$535 million **redevelopment of the Los Arcos Mall** (Scottsdale and McDowell roads), which will include an 18,000-seat arena for the Phoenix Coyotes professional hockey team. Work on the 72-acre **Ellman Cos.' project**, which will also include restaurants, retail shops, and a multiplex theater, **will not get under way until at least spring of 2000**. Plans for the project first must be approved by Scottsdale's redevelopment board and the Scottsdale City Council.

The developer of the \$650 million **Canals of Scottsdale project,** which was rejected by Scottsdale voters in September, is now promoting a **scaled-down and newly-named version** of the mixed-use development along the Arizona Canal (near Scottsdale and Camelback roads). Fred Unger has reduced the project, now called **SouthBank at the Scottsdale** Waterfront, to about one-third in size (11 acres vs. 27 acres) and one-fourth in cost (\$175 million vs. \$653 million). The project, which would require a much smaller investment from the city, would include a Western-themed complex of offices, shops, and restaurants, and a 100-room hotel.

**Vestar Development Co.** will build a 1 million-square-foot **mall and entertainment center in northeast Phoenix**. The \$100 million project on 100 acres in the Desert Ridge community will be similar in size to the Scottsdale Pavilions and Ahwatukee Foothills Towne Center (two Vestar developments), but will include more upscale stores. Completion of the project is projected for mid-2001.

### Trade

National home-improvement chain **Lowe's Cos. Inc.** announced it will **open 20 stores, creating 4,000 jobs**, in the Phoenix area **by 2004** as part of the company's \$1.5 billion expansion into Arizona, California and Nevada. The **first Valley store will open in 2000** at The Promenade, an open-air mall under construction at Frank Lloyd Wright Boulevard and Scottsdale Road in north Scottsdale. The North Carolina- based retailer said the average size of its stores will be 150,000 square feet.

As part of a merger with competitor Marshall Industries, **Phoenix-based Avnet Inc**. will **add 500 to 1,000 employees** to its Valley workforce of about 2,000. The world's second-largest electronics distributor, Avnet will transfer employees from various Marshall locations, including senior, executive, and product managers; information-technology workers, and accounting, credit, and human resources personnel. In addition, Avnet will house its Computer Marketing Group at a new facility at Arizona State University's Research Park in Tempe, where it will employ about 600. No information was available on how many of Avnet's workers will be new hires.

**Kitchell Development Co.** will start work in the next month on a **250,000-square-foot "power center"** on the southwest corner of 59th Avenue and Loop 101 in Glendale. Two national retailers, The Home Depot and Staples, will anchor the upscale shopping center called **Arrowhead Promenade**. The \$20 million center, which will feature a number of restaurants, is targeted to open next August.

Cincinnati-based **Kroger Co**. will **close** in late November **one of two Valley dairies** it owns and uses to produce milk products for its area Fry's and Fred Meyer grocery stores. The cost-cutting move will cause the **layoff of 90 union workers** at the **Jackson & Co**. dairy in Phoenix. Kroger is consolidating its Valley dairy operations in a newer facility in Tolleson that it acquired when it merged with Fred Meyer earlier this year. As part of the merger, Kroger also laid off several hundred workers when it closed two food warehouses in west Phoenix, consolidating its distribution operation into one Tolleson facility.

**DBL Distributing Inc.**, a wholesaler of consumer electronics accessories, will **double the size of its operation** when it moves into a new 61,000-square-foot headquarters at **Thunderbird Airpark Center** in north Scottsdale. Ten-year-old DBL, which currently employs about 100, expects to **add 40 to 50 workers a year** after it relocates

from its current Scottsdale Airpark facility. DBL, which sells to 18,000 independent retailers, was named one of the 500 fastest-growing private companies by Inc. magazine in 1996.

Two outdoor retail centers are taking shape in the east Valley. The \$20 million **Casa Paloma** is expected to **open** in the fourth quarter of **2000** at 56th Street and Ray Road in Chandler. Sitting on 28 acres, the 160,000-square-foot center will include national chains Banana Republic and Gap, along with a wide range of specialty stores. About 15 miles to the north in Scottsdale, **The Promenade**, a \$100 million, 866,000-square-foot outdoor shopping center, will feature a Sears' Great Indoors home store, along with a Lowe's Home Improvement, Petsmart, OfficeMax, and four different types of Gap stores. The project is expected to **open in early 2000**.

### **Services**

Despite being up for sale by parent company Rite Aid Corp., Scottsdale-based **PCS Health Systems, Inc.** will **hire up to 250 workers** for a **call center and other positions**. The pharmaceutical-benefit management company, which has 1,500 employees in Scottsdale, needs additional workers to handle more than 50 million U.S. and Puerto Rican customers and 300 million prescriptions a year.

**Excell Agent Services**, a long-distance directory-assistance provider, plans to **hire 500 additional workers** for its four Valley call centers. Excell, which employs about 1,000 at its Phoenix, Peoria, Mesa, and Tempe operations, wants 70 percent of its new hires to be full-time employees.

Atlanta-based **Mindspring Internet Services** plans to expand its Phoenix technical support, sales, and customer-care operations, **adding 400 employees by the end of the '99**. Located at Interstate 10 and University Drive, the fast-growing Internet service provider (ISP) with 1 million subscribers currently has 160 employees in Phoenix, about 10 percent of its U.S. workforce.

**Desert Samaritan Medical Center** in Mesa will **consider opening a trauma center** when it completes a \$66 million expansion project in late 2000 or early 2001. The expansion is adding 72 beds (49 in the emergency department) and six surgical suites. The Phoenix metro area has five trauma centers, considered adequate for a metro-area population of 3 million, but none in the southeast Valley..

## Finance, Insurance, and Real Estate

Mark **December 29**<sup>th</sup> on your calendar. That day, the state Land Department will auction **509 acres of public** land in north Phoenix that **USAA wants as a location for a regional office** for its insurance division. The San Antonio-based company said it will meet the minimum bid of \$39.7 million for the acreage, and if successful in obtaining the land, USAA said it could **start building** its complex of buildings **early next year**, with an estimated **completion by mid-2001**. USAA estimates that the regional hub **may employ up to 15,000** highly-skilled workers, with an average yearly salary of \$35,000. It would make USAA the Valley's third-largest private employer.

Vanguard Group, a Pennsylvania-based financial services company, plans to add 300 to 400 more employees by the end of 2000 to its current workforce of 1,100 at two north Scottsdale locations. Vanguard relocated to Scottsdale from Phoenix in December 1998 when it opened the first of three buildings at its campus near the Scottsdale Airpark. Vanguard's Valley facilities handle telephone calls from shareholders and new prospects.

One Minnesota-based financial-services company canceled plans to expand its operations in Arizona, so another took its place — in the exact location. **Metris Cos.**, which markets credit cards to households with incomes of \$15,000 to \$35,000, has **purchased the 17-acre Perimeter Center** in north Scottsdale (Bell and Pima roads) for a **regional headquarters**. Based in St. Louis Park, Minn., Metris will **hire 700 workers** for two subsidiaries — Direct Merchants Bank and Metris Recoveries — in areas such as computer operations, credit risk, collections, and customer services. Metris, which expects to start operations in January, replaces Green Tree Financial Services, which pulled the plug on a western regional center at the Perimeter Center that would have created 250 jobs. Green Tree has about 1,000 employees at its Tempe operations.

**Del Webb Corp.** has **moved its headquarters** for its Sun Cities communities from Sun City West **to the city of Surprise**. The move into a new 35,000-square-foot building in its Sun City Grand community will lead to an **additional 200 employees**, bringing employment at its headquarters to 600. The relocation was brought about because the 17-year-old Sun City West has been completed, while Sun City Grand is less than one-third complete with 3,000 homes.

# Transportation, Communications, and Public Utilities

Plans for yet another gas-fired power plant have been announced by two out-of-state utilities. Power Development Enterprises of Dallas and Industrial Power Technology of Santa Rosa, Calif., will build a \$400 million facility near Gila Bend (about 70 miles southwest of Phoenix) that will create 200 jobs during the construction phase and **30 permanent jobs** when complete. Work on the plant — the fifth such facility proposed for the Phoenix MA — will begin by late 2001 and be completed by early 2004, a spokesperson for Power Development said. Deregulation of the state's utility industry has spurred plans for seven new power plants in Arizona. Pinnacle West Capital Corp., parent company of Arizona Public Service Co., and Duke Energy Corp. plan to build 2,120- and **550-megawatt plants**, respectively, near the Palo Verde Nuclear Generating Station 50 miles west of Phoenix. Construction of the plants will begin in late 2000 or early 2001 and lead to several hundred temporary construction jobs and about 400 permanent jobs when fully operational. Pinnacle West has also announced plans to join with San Jose-based Calpine Corp. to build a \$220 million, 500-megawatt natural gas-fired power plant at APS' West Phoenix Power Station. The facility will create 200 jobs

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during construction and 25 full-time positions after completion in 2001. And Phoenix-based Salt River Project has also announced plans to build a natural gas-fired facility in Tempe or Gilbert.

The Valley's third Spanish-language television station will begin broadcasting in late November. But what distinguishes KFE-TV, Channel 67, from the two others, said one of the station's investors, is that it will devote more time to local programming and target the Mexican-American community, as opposed to Hispanics overall. The two other Spanish-language stations, based in Miami and Los Angeles, offer mainly national programming. However, Univision Channel 33, the Valley's No. 1 rated Spanish-language channel, is building a multimillion-dollar broadcast center in south Phoenix, while Telemundo Channel 64 is shaking up its organization, revamping its logo and hiring a new general manager. The Phoenix metro area is the fastest growing Hispanic market in the nation, according to a local polling company.

**Phoenix Sky Harbor International Airport** opened a new \$54 million concourse on the northwest side of Terminal 4 in early November, which will allow Tempe-based **America West Airlines** to **expand its Phoenix operations** by about one-third by late 2000. The concourse's 14 new gates will lead to the airline adding 12 jets to its fleet, as well hiring additional personnel — flight attendants, pilots, and support staff.

#### **Tucson Metro Area**

### **Trade**

**Osco Drugs** is giving Walgreen's, the Tucson area's dominant drug store, a run for its customers. Osco recently **opened two new stores and is expanding another**. These were the first changes that Osco — whose parent company, American Stores, recently merged with Albertson's — had made in Tucson in nearly 25 years. Osco has 12 stores in the Tucson market, about one-third as many as Walgreen's.

## Government

**Davis-Monthan Air Force Base** appears to have dodged a bullet — at least for now. With the dark clouds of an impending third round of planned military defense cuts hanging over its head, Davis-Monthan looked like a possible target. But the skies appear to have cleared with the announcement of the **addition of 200 military jobs in Jan** 

**uary** 2000 as part of D-M's role as the "lead base" for one of 10 Aerospace Expeditionary Forces. D-M, which is home to the Air Force's 355th Combat Wing and 354th Fighter Squadron, directly contributes about \$700-\$800 million to Tucson's economy, housing about 6,000 troops and employing 1,700 civilian workers.

### **Balance of State**

### Manufacturing

A manufacturer of materials used to make explosives and fertilizer plans a **\$200** million expansion and upgrade of its facilities south of Benson. Apache Nitrogen Products Inc., which has about 100 employees, expects to hire hundreds of construction workers during the expansion project and **20** permanent workers when the facility is complete. No timetable was given for start of the project, which first must receive state and federal approval.

#### Construction

The Sierra Vista City Council approved an **855-home Canyon De Flores subdivision** after **developer Castle & Cooke** agreed to scale down the number of homes in its 542-acre tract of land at Highway 92 and Kachina Trail. Work on the housing project is not likely to **begin until January 2000**, however, because of a number of zoning issues still to be resolved.

The **Williams City Council approved a 90-acre gated community** northwest of Interstate 40 and Airport Road. Called **Ponderosa Ridge**, the \$5 million development will consist of 321 manufactured homes, a 5,000-square-foot clubhouse, a swimming pool, and a 1,900-square-foot office. **Developer Ryanco Inc.** of Aspen, Colo., is expected to begin work on the first phase of the project in spring of 2000.

### Services

The **Yuma Cancer Center**, a partnership between Arizona Oncology Services and Yuma Regional Medical Center (YRMC), **opened its doors in mid-October**. The center, which will employ 10 people after it hires two new oncologists, will offer radiation and chemotherapy services, enabling patients to be treated locally instead of having to travel to Phoenix or San Diego. In addition to the cancer facility, **YRMC** will **open a new heart center in November**, featuring a state-of-the-art cardiac catheterization laboratory, and an **outpatient services center in December**.

# Arizona Metro Areas Show Stronger Wage Growth

(continued from page 8)

a small percentage of the area's employment, 6.3 percent, compared to the Phoenix MA, where the two industries combined account for 17.7 percent of all nonfarm jobs. (In re-

cent years, Flagstaff officials have taken a more pro-growth attitude in its zoning laws.)

Interestingly, the average wage in the greater Flagstaff area (excluding Kane County, Utah) was \$400 above the MA's average in '97, and the greater-Flagstaff area wage increased nearly 6 percent to \$23,800 in '98. A likely removal of Kane County from the metro area — it's more than 200 miles and a Grand Canyon away — after the next census would boost the area's metro-wage ranking.

—Brent Fine, RA Publications Editor

# **Economy Showed Signs** of Slowing in 2nd Quarter

(continued from page 9)

quarter. The year-to-year growth rate of 9.3 percent more than doubled the 10-year average of 4.6 percent. Favorable mortgage interest rates and sustained consumer confidence continued to be the main drivers behind this exceptional growth.

The healthy transportation, communications, and public utilities group (TCPU) again showed vigor in the second quarter of '99. All sectors showed growth well above their 10-year averages. The transportation sector added jobs as Arizona continued to strengthen itself as a transportation hub for the Southwest. Communications continued to grow as expanding technological options are discovered, adopted, and utilized by the populace. Pubic utilities expanded to meet the growth needs of the Arizona's population — one of the nation's fastest-growing regions.

Growth in the finance, insurance, and real estate (FIRE) group slowed in the second quarter. Employment in the group had been growing at more than double the 10-year average since the first quarter of '96. However, the second quarter was only one-tenth of one percentage point above the 10-year average growth rate. Weak employment growth in the finance and insurance sectors in May was

responsible for the slow secondquarter showing.

Trade continued its steady pace in the second quarter of '99, just marginally above the 10-year average. Both wholesale trade and retail trade fared equally well for the quarter. The last time that trade showed a poor- performing quarter was the fourth quarter of '92.

The services industry year-to-year expansion rate slowed to 3.2 percent - two-thirds of its normal 5.5 percent second-quarter growth rate. Business services has slumped since the first guarter of '98. Health services and hotels and lodging grew on par with their respective 10-year averages.

Government jobs grew by a meager 1.8 percent in the second quarter, half the 10-year average. This was the fifth quarter in a row of below-average employment growth in government and indicative of a general slowdown in employment growth. AET

> —Peter Kozv. RA Economist



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